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Claims

1. A data transmission method in a telecommunication system, the method being c h a r a c t e r i z e d by

determining (202) the number of bit rate classes,

setting (204) bit rates for the bit rate classes,

setting (206) a maximum transmission power target,

arranging (208) resource requests into a queue,

allocating (210) resources according to the requests in the queue until the maximum power target is achieved.

2. A data transmission method in a telecommunication system, the method being c h a r a c t e r i z e d by

determining (202) the number of bit rate classes,

setting (204) bit rates for the bit rate classes,

setting (206) a maximum transmission power target,

arranging (208) resource requests into a queue,

allocating (210) resources according to the requests in the queue,

if the maximum power target is not achieved when resources have been allocated to all the users in the queue (212) ,

increasing (214) the bit rates on the basis of the queue until the maximum power target is achieved,

if the resource requests cause too much load in relation to the maximum power target (216)

decreasing (218) the required number of bit rates in a predetermined way.

3. The method of claim 1 or 2, c h a r a c t e r i z e d in that the bit rate classes are determined on the basis of the required Quality of Service, QoS.

4. The method of claim 1 or 2, c h a r a c t e r i z e d in that the bit rate classes are set on the basis of a QoS parameter ARP, Allocation Retention Priority.

5. The method of claim 2, c h a r a c t e r i z e d in that when the maximum power threshold is exceeded, the bit rate is decreased by allocating to the user a general minimum bit rate.

6. The method of claim 2, c h a r a c t e r i z e d in that when the maximum power threshold is exceeded, the bit rate is decreased by allocating to the user a class-specific minimum bit rate.

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7. The method of claim 2, c h a r a c t e r i z e d in that the decreasing of the bit rate starts form the user who has a bit rate higher than the general minimum bit rate and the lowest priority, followed by the user who has a bit rate higher than the class specific minimum bit rate and the lowest priority.

5   8. The method of claim 2, c h a r a c t e r i z e d in that if a general minimum bit rate or a class specific minimum bit rate is allocated to the users and the load remains too high, the required number of users are transferred to the control channel.

9. A radio network controller

10   c h a r a c t e r i z e d by comprising

means (608, 618) for determining the number of bit rate classes,

means (608, 618) for setting bit rates for the bit rate classes,

means (608, 618) for setting a maximum transmission power target,

means (608, 618) for arranging resource requests into a queue,

15   means (608, 618) for allocating resources according to the requests in the queue until the maximum power target is achieved.

10. A radio network controller

c h a r a c t e r i z e d by comprising

means (608, 618) for determining the number of bit rate classes,

20   means (608, 618) for setting bit rates for the bit rate classes,

means (608, 618) for setting a maximum transmission power target,

means (608, 618) for arranging resource requests into a queue,

means (608, 618) for allocating resources according to the requests in the queue,

25   means (608, 618) for increasing the bit rates on the basis of the queue until the maximum power target is achieved,

means (608, 618) for decreasing the required number of bit rates in a predetermined way.

11. The radio network controller of claim 9 or 10, c h a r a c t e r -

30   i z e d in that the radio network controller comprises means (608, 618) for determining the bit rate classes on the basis of the required Quality of Service, QoS.

12. The radio network controller of claim 9 or 10, c h a r a c t e r -

i z e d in that the radio network controller comprises means (608, 618) for set-

35   ting the bit rate classes on the basis of a QoS parameter ARP, Allocation Retention Priority.

13. The radio network controller of claim 10, c h a r a c t e r i z e d in that the radio network controller comprises means (608, 618) for decreasing the bit rate by allocating a general minimum bit rate to a user.

14. The radio network controller of claim 10, c h a r a c t e r i z e d 5 in that the radio network controller comprises means (608, 618) for decreasing the bit rate by allocating the class specific minimum bit rate to a user.

15. The radio network controller of claim 10, c h a r a c t e r i z e d in that the radio network controller comprises means (608, 618) for starting the decreasing of the bit rate from the user who has a bit rate higher than the gen- 10 eral minimum bit rate and the lowest priority, followed by the user who has a bit rate higher than the class specific minimum bit rate and the lowest priority.

16. The radio network controller of claim 10, c h a r a c t e r i z e d in that the radio network controller comprises means (608, 618) for transferring the needed number of users onto the control channel.

15   17. A base station

c h a r a c t e r i z e d   by comprising

means (608, 618) for arranging resource requests into a queue,

means (608, 618) for allocating resources according to the requests in the queue.

20   18. A base station

c h a r a c t e r i z e d   by comprising

means (700) for arranging resource requests into a queue,

means (700) for resources according to the requests in the queue,

means (700) for increasing the bit rates on the basis of the queue 25 until the maximum target set for the transmission power is achieved,

means (700) for decreasing the required number of bit rates in a predetermined way.